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CARE OF METALS AND KITCHENWARE

WITH TODAY'S trend toward variety in decorative items and kitchenware, homemakers are asking what cleaning methods are best. New cleaning materials are also coming to the homemaker's attention. This leaflet is a summary of cleaning methods and materials for metals, heat-resistant glassware, and other hard surfaces in the home.

Suggestions for cleaning these various surfaces are given in chart form on the next few pages. The following pointers will help in using the chart:

1. Know your material before you start to clean it

Suggestions and warnings for cleaning and polishing different materials are based on the characteristics of the basic material. Avoid trouble by knowing "what you have" before you start to work.

2. Choose the method of cleaning that suits your purpose

Some cleaning methods are time-consuming but frequently are most suitable for a valued keepsake. Other methods for the same metal may be less exacting and are quite acceptable for utility articles. Know the different cleaning methods in order that you may choose one that suits your purpose.

3. Watch temperature in chemical cleaning

Heat speeds up any chemical cleaning action. Sometimes this is desirable. Sometimes slower action is preferred. Watch the temperatures of solutions used.

4. Know your cleaning materials

- *Soaps and synthetic detergents* (listed as "syndets" in the following table). Syndets are soaplike cleaning agents. Soaps and syndets usually are interchangeable but in some instances only one is recommended. Check the label to see which you are using.
- *Other detergents,* such as water, ammonia, denatured alcohol, linseed oil, kerosene, etc.
- *Abrasive-type cleansers,* such as whiting, scouring powders, steel wool, plastic scouring pads, etc. These will vary greatly in degree of hardness and fineness. Correct choice is important with certain soft metals.
- *"Chemical-action" cleansers,* such as certain commercial metal cleansers, acids, baking soda, etc.

5. Know your protective materials

These include lacquers, various types of waxes, tarnish-resistant flannel, polyethylene bags, etc.

6. Keep your cleaning shelf adequately stocked

Keep only those cleaning supplies on hand which you need for your home. Make your selection from those listed in the last column of the chart. Choose those that clean efficiently and suit your purpose. Select supplies suitable for several surfaces when possible.

7. Keep cleaning supplies handy—store in safe place

Some of these materials are poisonous or harmful. Store out of reach of children.

Methods for Cleaning Metals, Heat-Resistant Glassware, and Other Kitchenware

"Know your material before you start to clean it."

Material or surface to be cleaned	Characteristics	General care and cleaning	Polishing or special treatments	Special supplies for your cleaning shelf*
Aluminum or aluminum alloys (Pans and decorative items)	Aluminum is a soft metal noted for its lightness in weight and resistance to oxidation. Alkaline foods or water leave a dark film on the surface of aluminum pans. Salty foods allowed to stand in pans may cause pitting.	Wash in warm water using mild soap. Strong detergents, alkalies, and alkaline scouring powders cause discoloration. If food burns, soak in hot water until it is loosened. Scraping with a wooden spoon, clothespin, or plastic scouring pad will not damage the surface. Pan may become warped if water is added when pan is dry and overheated. To straighten utensil, place wooden block over bulge and hammer back into shape.	To brighten darkened aluminum: ▶ Cook rhubarb, tomatoes, or tart apples in the pan. Foods are edible when so cooked. ▶ Boil solution of 2 teaspoons cream of tartar to 1 quart water in pan for 10 minutes. ▶ Or, boil solution of 1 tablespoon vinegar to 1 quart water until discoloration is removed. Follow any of these methods by a quick scouring with fine steel wool treated with soap.	Mild soap Plastic scouring pad, wooden spoon, or clothespin Fine steel wool treated with soap Kitchen items: Acid food or cream of tartar or vinegar
Brass, bronze, and copper	Brass, an alloy of copper and zinc, is most often used for decorative items. Bronze, used similarily, is an alloy of copper and tin. Copper is a metal used for decorative items in the home and for kitchenware. It is a good conductor of heat and is often applied to the bottom of utensils made of other metals.	Keep *decorative items* dusted and clean. To clean, wash in hot, sudsy water. Rinse well and dry with soft, nonlinting cloth. Wash *kitchenware* in warm water using soap or a syndet. Rinse well and drain or wipe dry. Wiping will bring up the luster.	If lacquer has been used, remove with denatured alchohol or recommended solvent before polishing. *To polish decorative items:* ▶ Use a commercial metal polish, following the directions on the container. ▶ Use a mixture of salt moistened with vinegar. Apply with a soft cloth using a rubbing motion. Follow by washing well in sudsy, warm water; rinse and polish dry with a soft dry cloth. ▶ For a soft, dull finish rub with a mixture of linseed oil and whiting or rottenstone. Wipe off with a clean, soft cloth and polish by rubbing. ▶ For antique brass, rub with oil, remove excess, and polish with soft, dry cloth. After polishing, a metal lacquer may be used to retard tarnishing.	Soap or syndet Cleaning and polishing cloths Denatured alcohol A commercial metal polish or Kitchen items: Salt Vinegar or Linseed oil Whiting or rottenstone
			A spray-type lacquer is easy to apply. Follow directions on container when applying or removing metal lacquer. *To polish kitchenware,* use a commercial metal cleanser recommended for copper.	Metal lacquer (spray type)
Chromium	A metal noted for its hardness and brittleness. Avoid letting salt-containing food or salt in acid stand on chromium surfaces.	Wash with soap or syndet and water. Rinse and wipe dry to bring up luster. To remove burned-on grease (in case of electrical appliances) use whiting moistened with ammonia or denatured alcohol. Avoid coarse abrasives, scouring powders, or steel wool.	Polish, using soft, dry cloth.	Soap or syndet Whiting Ammonia or denatured alcohol Cleaning and polishing cloths
Enameled appliances— (Synthetic or porcelain enamel)	A glass-like substance fused to a metallic base. May or may not be treated to withstand acids in food.	Wash with soap or syndet and warm water; rinse and polish with dry cloth. For hard-to-remove marks or stains, use whiting moistened with water. For burned grease, use whiting and ammonia. Avoid coarse cleansers or steel wool.	Occasional cleaning with cream-type wax makes surfaces easier to dust and keep clean. Polish with soft, dry cloth.	Soap or syndet Soft cloths Whiting Ammonia Cream-type wax
Enameledware (cooking utensils)	Glass fused to a steel base. Smooth, nonporous, easy-to-clean. Better grades are resistant to acids and not readily marked by spoons. Also, more resistant to chipping.	Wash enameledware in hot, sudsy water. Soak to loosen sticking food. Baking soda may be added to help loosen food. Use only plastic scouring pad, wooden spoon, or clothespin to scrape utensil. When scouring must be done, use whiting and ammonia. Avoid scratching the surface of enameledware. Baking soda may help remove discolorations.	No polish desired.	Soap or syndet Whiting Ammonia Plastic scouring pad, wooden spoon, or wooden clothespin Kitchen items: Baking soda

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Material or surface to be cleaned	Characteristics	General care and cleaning	Polishing or special treatments	Special supplies for your cleaning shelf*
Enameled fixtures—sinks, tubs, wash basins	A vitreous (glass) or porcelain enamel surface fused to a metal base. Subject to damage from chipping, strong acids, and coarse cleansers.	Wash with warm, sudsy water and rinse well. *To remove soap curd,* use home-type or similar fine cleanser or kerosene. Follow kerosene with soap and water wash. Rinse well. *To remove rust stains,* use 1 tablespoon oxalic acid crystals (Poison) dissolved in ½ cup warm water. Apply to stain, allow to stand a few minutes, and rinse well. Avoid strong acids or harsh chemicals in removing rust. Glaze may be affected. Commercial removers may be used.	Polish with soft cloth. Use of softened water or syndet will reduce scum formation.	Soap or syndet Kerosene and/or home-type† or similar fine cleanser Oxalic acid crystals (Poison)
Glassware (oven and top-of-range utensils)	Heat-resistant glassware has been treated to withstand high temperatures. Such utensils may break when subjected to sudden changes in temperature. Ovenware is not suitable for top-of-range use. Avoid scratching glassware.	Wash glassware in hot, sudsy water. Soak to remove sticking food. Baking soda may be added to help loosen food. Use only plastic scouring pad, wooden spoon, or clothespin to scrape utensil. When scouring must be done, use whiting or whiting and ammonia.	No polish desired. To prevent sticking, grease lightly any glassware container before using.	Soap or syndet Plastic scouring pad Whiting Ammonia Kitchen items: Baking soda
Iron (*Cast-iron* as that used in cooking utensils)	A silver-white metal readily oxidized (rusted) in the presence of moisture.	Wash with soap and water, using a stiff brush or scouring powder as needed. Rinse and wipe dry immediately or heat dry. To retain the seasoning desirable for cast-iron utensils, use syndets or highly alkaline cleansers *only when needed* for hard-to-remove foods. *To remove sticking or burned-on foods,* soak in hot water. Use plastic scouring pad or wooden spoon to loosen food. Add baking soda or syndet *only if needed.* Reseasoning may be necessary after their repeated use, since fat may have been removed from pores of metal. *To remove rust stains,* scour with a fine cleanser or steel wool.	Seasoning is desirable in cast-iron utensils. Unseasoned utensils will rust readily and foods will stick. *To season a cast-iron utensil* wash utensil well and scour with powdered cleanser or steel wool. Wash and dry thoroughly. Rub the inside with unsalted fat and heat slowly for several hours. Use low temperature whether heated on top of range or in oven (250° to 300°). More fat may be added as needed. To make ready for use, wipe out extra fat, wash utensil in soap and water, rinse, and dry thoroughly. With added use, fat will continue to fill the pores of the metal. *To store,* coat with unsalted fat and wrap. A paraffin coating may be used for long-time storage.	Soap Stiff-bristled brush Household cleanser Fine steel wool Plastic scouring pad or wooden spoon Syndet or soda
Iron (*Wrought iron* as that used for decorative items)	Generally made of the purest form of iron, thus somewhat more resistant to rust than cast iron.	Keep dusted. Occasionally wash with damp cloth and wipe dry. A protective coat of liquid wax will make cleaning easier and retard rusting. Do not use liquid wax on fireplace accessories as it is flammable.	No polish desired. *To remove rust stains,* rub with kerosene and scour with fine grade steel wool. If rust is difficult to remove allow kerosene to remain long enough to soften rust.	Liquid wax Kerosene Fine steel wool (untreated)
Monel	An alloy of nickel, copper, and other elements. Resembles nickel in appearance and is used for sinks, table tops, etc. Acquires a patina (change in appearance) with use and is then easier to care for.	Wash with soap or syndet and water. Rinse and wipe with dry cloth. Fine scouring powder (whiting) may be used as needed. Add ammonia to scouring powder for hard-to-clean spots.	After cleaning, rub with soft dry cloth to develop sheen. Paper towels may also be used.	Soap or syndet Whiting Ammonia Soft cloths or paper towels
Nickel	A metal capable of high polish, resistant to oxidation, often used as a plating for iron, steel, copper. This finish is relatively soft, thus subject to wear from abrasive cleaners. Metal beneath plating corrodes when exposed.	Wash with sudsy water, rinse, and wipe dry. For stubborn stains, use fine grade whiting and water or denatured alcohol.	Polish with soft, dry cloth.	Soap or syndet Whiting Denatured alcohol
Pewter	An alloy made of tin and other metals—frequently of tin and copper. Pewter is very soft and must be handled with care to avoid scratching.	Wash in hot, sudsy water, rinse, and dry thoroughly with a soft cloth.	Polish with soft, dry cloth. To remove slight tarnish, use a silver polish. Avoid a harsh metal polish or cleanser. A soft luster is desired in pewter.	Soap or syndet Soft cloths Silver polish

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Material or surface to be cleaned	Characteristics	General care and cleaning	Polishing or special treatments	Special supplies for your cleaning shelf*
Plastic kitchenware	Plastics vary greatly in characteristics. Most of those used for household objects are odorless, tasteless, nontoxic, and noncorrosive. They may be flammable or burn slowly; they scratch easily; some are sensitive to heat (soften at 150° to 300°) and some are brittle when cold. They may be damaged by heavy blows, dropping, and contact with certain common household items.	Wash in warm, sudsy water. Do not boil. Some plastic kitchenware is damaged when washed in a dishwasher. Avoid harsh abrasives, sharp knives, solvents, nail polish and remover, and oil in rind of citrus fruits.	To remove stains, use special commercial preparations or a mixture of whiting and water or baking soda and water. Save labels or directions and check for specific cleaning problems.	Soap or syndet Commercial cleaning preparations Baking soda or Whiting
Pottery or earthenware	Conducts heat slowly and evenly; retains heat well. Glaze is usually acid-resistant, but is affected by sudden changes in temperature. Do not place hot utensil in cold water. Protect from harsh abrasives and heavy blows.	Wash in hot, sudsy water. Soak to loosen burned or stuck food. Baking soda may be added to help loosen food. Use only plastic scouring pad, wooden spoon, or clothespin to scrape utensil. When scouring must be done, use whiting and ammonia. Avoid scratching the surface of ovenware.	No special polish desired.	Soap or syndet Whiting Ammonia Plastic scouring pad, wooden spoon, or clothespin Kitchen items: Baking soda
Silver or silver alloy	A white, soft metal capable of a high degree of polish. Easily scartched by harsh abrasives. Salt and salt air will corrode silver quickly. (Empty silver salt dishes and salt shakers after each use.) With use, silver acquires a patina or soft sheen which is desirable. Silver tarnishes readily and even stored silver, well protected, will become discolored. Tarnish is caused by sulfur which may come from food, from the air (smoke fumes, fuel gases, soot, etc), or from rubber. Frequent use of silver deters tarnish.	Wash in warm, sudsy water. Rinse well and dry immediately. Do not let silverware stand with food on it. Do not let hollow-handled silverware or hollowware stand in water. To protect silver: ▶ Store silverware in a chest lined with tarnish-resistant flannel. Wrap large silver items in tarnish-resistant flannel or air-tight plastic bag when not in use. ▶ Lacquer or wax may be used on silver decorative objects. It is not suggested for silverware. This may prevent tarnish, but many feel that some of the beauty of silver is lost when so treated. ▶ Handle silver with care to avoid nicks and heavy scratches; knife blades and other metals can do damage if they come in contact with silverware. Long-time storage of silver: When storing silver for a period of time, rub with oil or vaseline and wrap in soft cloths or tissue before placing in flannel bags.	*Rubbing methods of polishing:* ▶ *Polishing cloth* Light tarnish is easily removed by rubbing with a polishing cloth. ▶ *Paste polish* Apply with soft cloth, small sponge, or soft brush. Rub lengthwise, not in circular motion. Wash in hot, soapy water; rinse and polish with soft, dry cloth. ▶ *Cream-type polish* Use in same manner as paste polish. *Electrolytic methods of cleaning:* Do not use these methods if silver has an oxidized or French gray finish. Darkened sections of pattern will be brightened. These methods remove little silver. ▶ *Aluminum-salt-soda:* Use an enamel pan. Fill with enough water to cover silver. Bring to a boil. Add 1 tablespoon salt and 1 tablespoon baking soda for each quart of water. Place a piece of aluminum foil in pan and add silver. (Silver must touch foil or another piece of silver.) Let stand until silver becomes bright. Remove with tongs. Wash, rinse, and polish dry. ▶ *Commercial "dip" cleaners:*‡ Follow instructions given. ▶ *Magnesium alloy and a syndet:* The alloy is placed in the dishpan with each dishwashing. Magnesium piece must be secured regularly to remain effective. Any of these methods gives a better appearance if followed by a quick, rubbing polish.	Mild soap Soft cloths Polishing cloth or Paste polish (commercial or home type†) or soft brush Small sponge, cloth or Cream-type polish Small sponge or cloth Enamel pan Aluminum foil Salt Baking soda Tongs or Commercial "dip" cleaners or Magnesium alloy and syndet
Stainless steel	An alloy containing iron and carbon, noted for its hardness. Stainless steel is easy to clean and is used for utensils, tableware, sinks, counter tops, etc. Recently finishes on some electrical appliances have also been of stainless steel.	Wash with warm water using soap or syndet. Rinse, and polish dry with a soft cloth, or use commercial cleaner. A film or heat spots sometimes appear on this metal. To remove, use a fine abrasive powder such as whiting. Do not use coarse scouring powders or steel wool.	Polish with soft cloth.	Soap or syndet Commercial cleaner Whiting Soft cloths

Choose methods of cleaning silver in relation to value placed on it. Some silver is of great value—sentimental or monetary. The most careful methods should be used in its care. On the other hand, some silver is a utility item in the kitchen. For it, quick and efficient methods of cleaning are important. Cleaning results should be judged in relation to value of article and time homemaker has for care of her silver.

Home-Prepared Cleaning Preparations

Scouring powder

Mix thoroughly:

3 parts whiting
1 part trisodium phosphate
1 part sudsing syndet

Store and use from large shaker (holes must be large enough to allow grains of trisodium phosphate to pass through). This scouring powder is suitable for cleaning sinks, washbasins, bathtubs, etc. This mixture is NOT recommended for woodwork or any surface sensitive to highly alkaline cleaning materials.

NOTE: Secure whiting from a paint store; trisodium phosphate from a drug store, paint store, or grocery store.

Silver polish

Moisten whiting with denatured alcohol until it is the consistency of thick cream. Store in tightly covered jar.

NOTE: This mixture may also be used on chromium, nickel, enameled surfaces, glass ovenware, and other easily marred surfaces.

Silver and chromium cleaner

1 cup boiling water
2 cups mild soap flakes
¼ teaspoon household ammonia
⅓ cup whiting

Dissolve the soap in boiling water. Add other ingredients and stir occasionally until cool. Keep in wide-mouthed, covered jar. Use like a silver cream for silver or chromium.

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